Main Cross Sections

Elastic
Capture
Inelastic

Cross Section

n_2n
n_3n
n_n_1
n_n_2
n_n_3
n_n_4
n_n_cont

cross section (barn)

neutron energy(eV)

Cross Section

Angular distribution (CMS)
Elastic

neutron energy (eV)

cos(theta)

probability

Energy distribution (LABS)
n_2n

probability
10^1
10^0
10^{-1}

energy (eV)
0
5
10
15
$*10^6$

neutron energy (eV)
5
10
15
20
$*10^6$
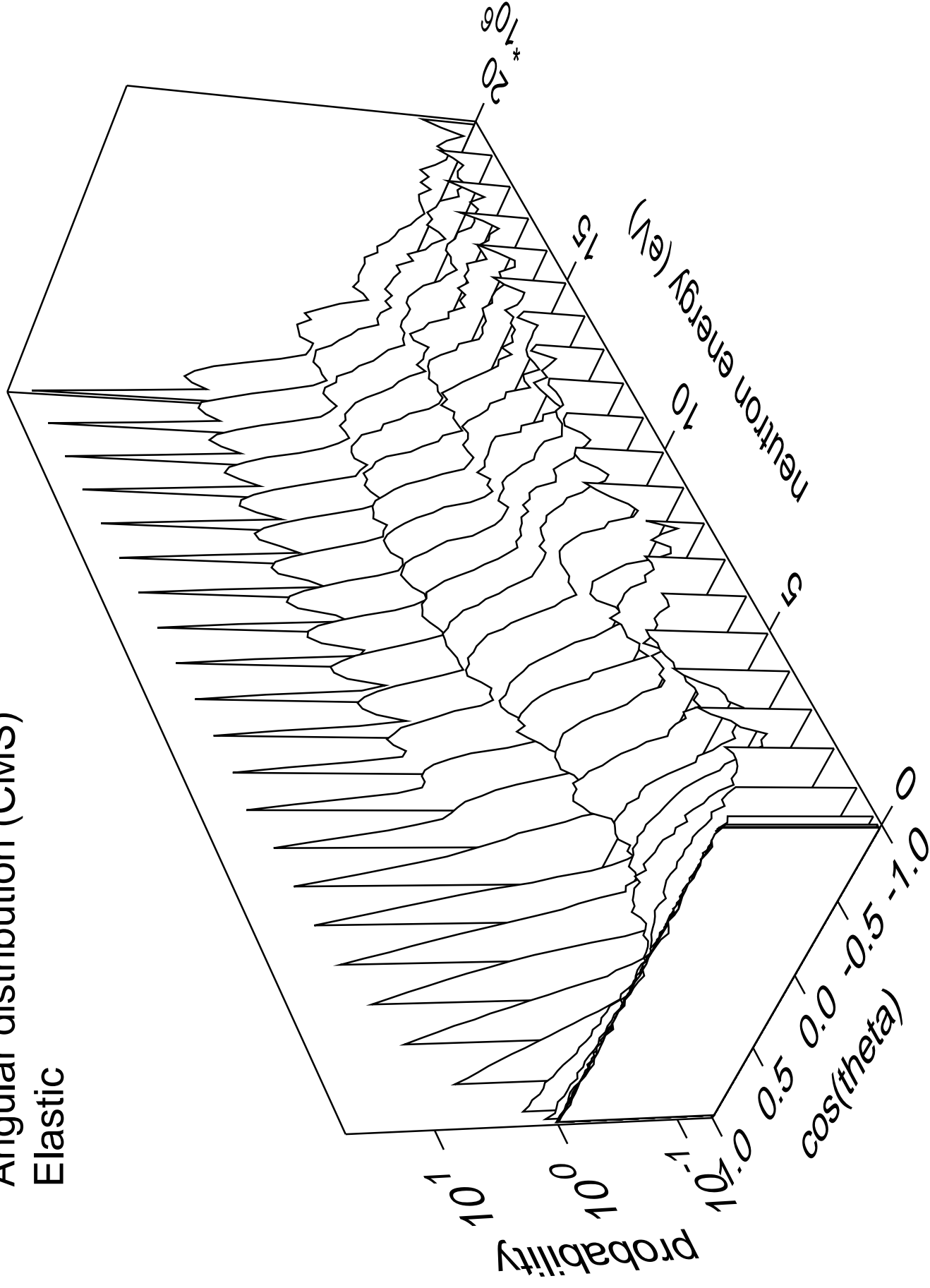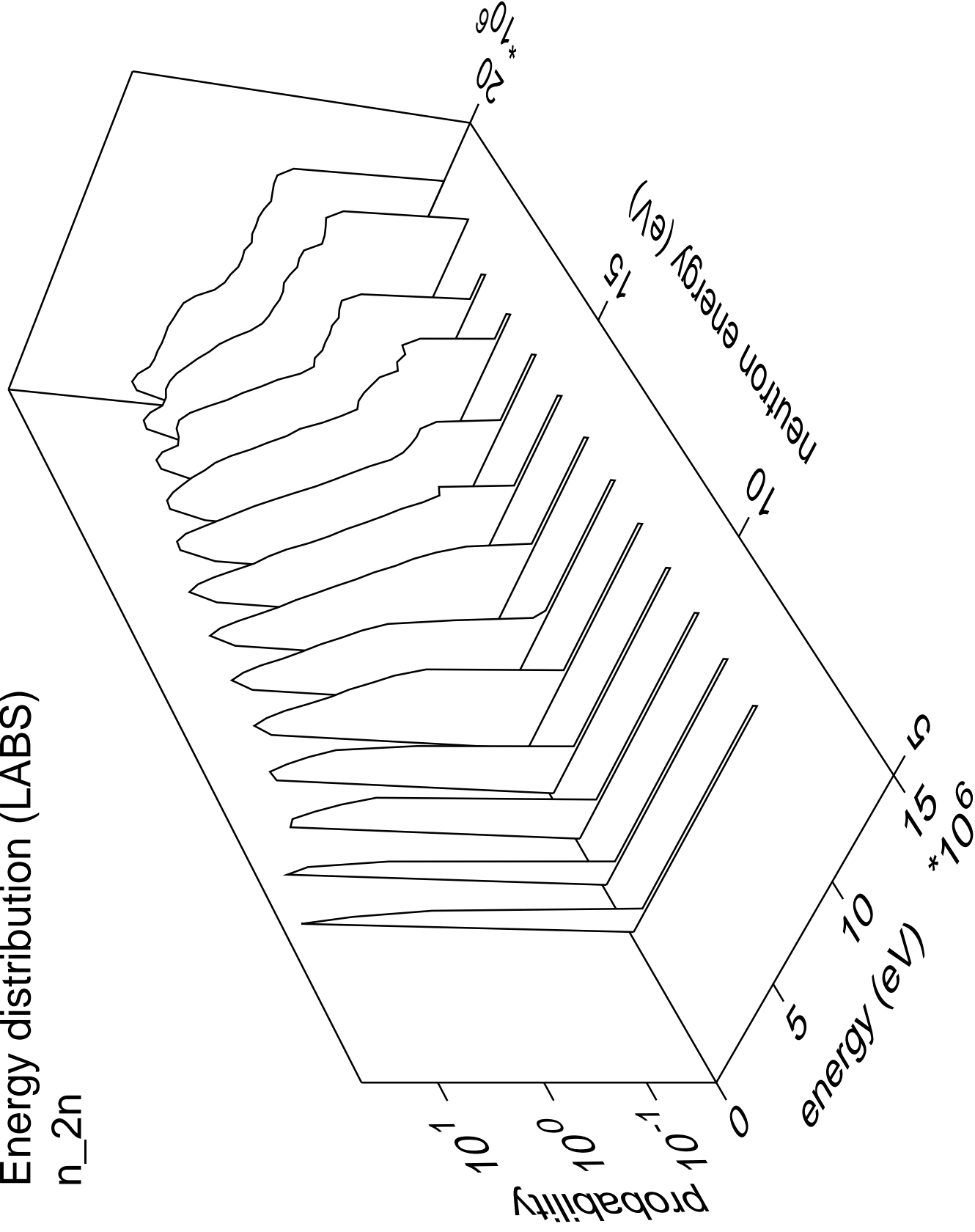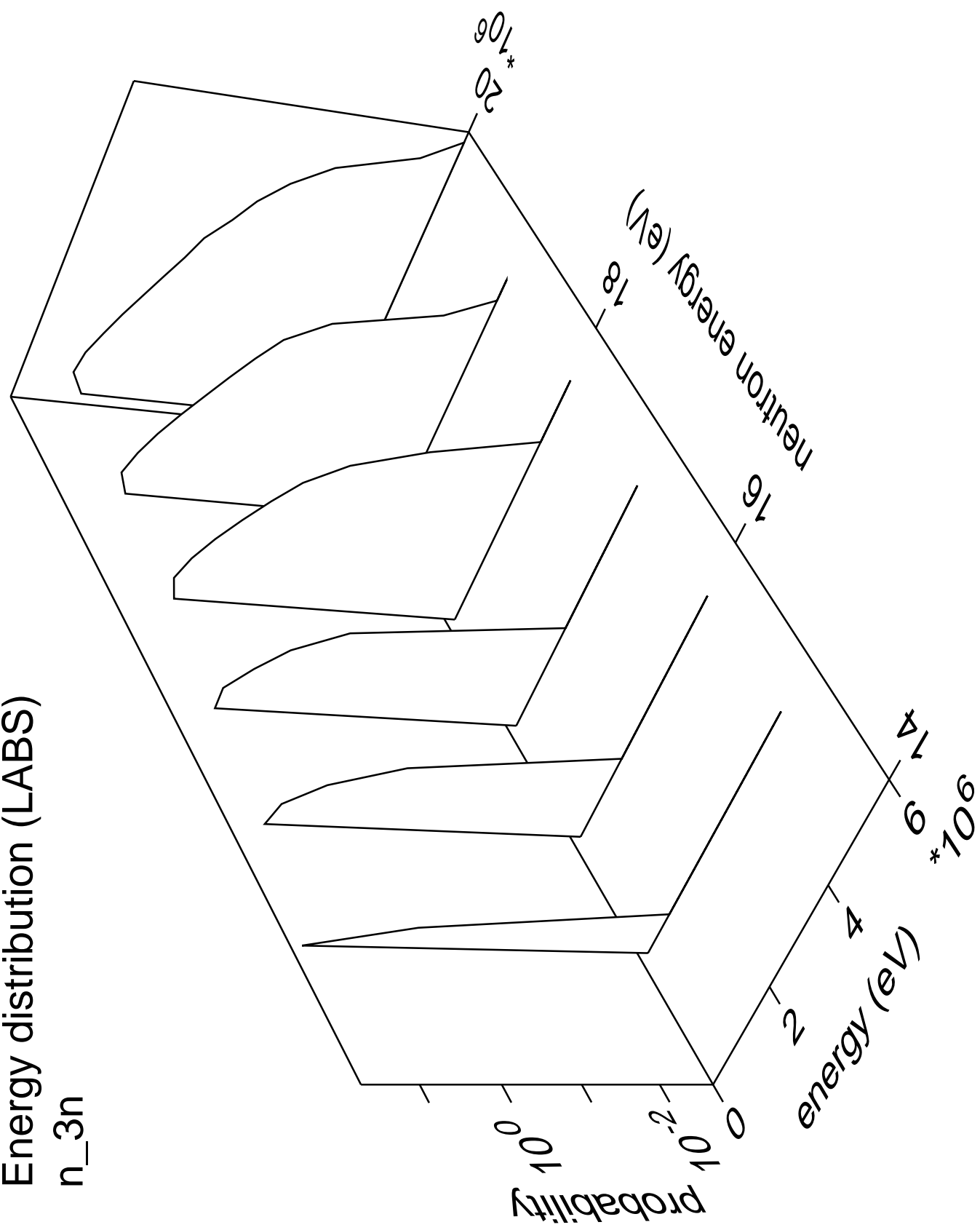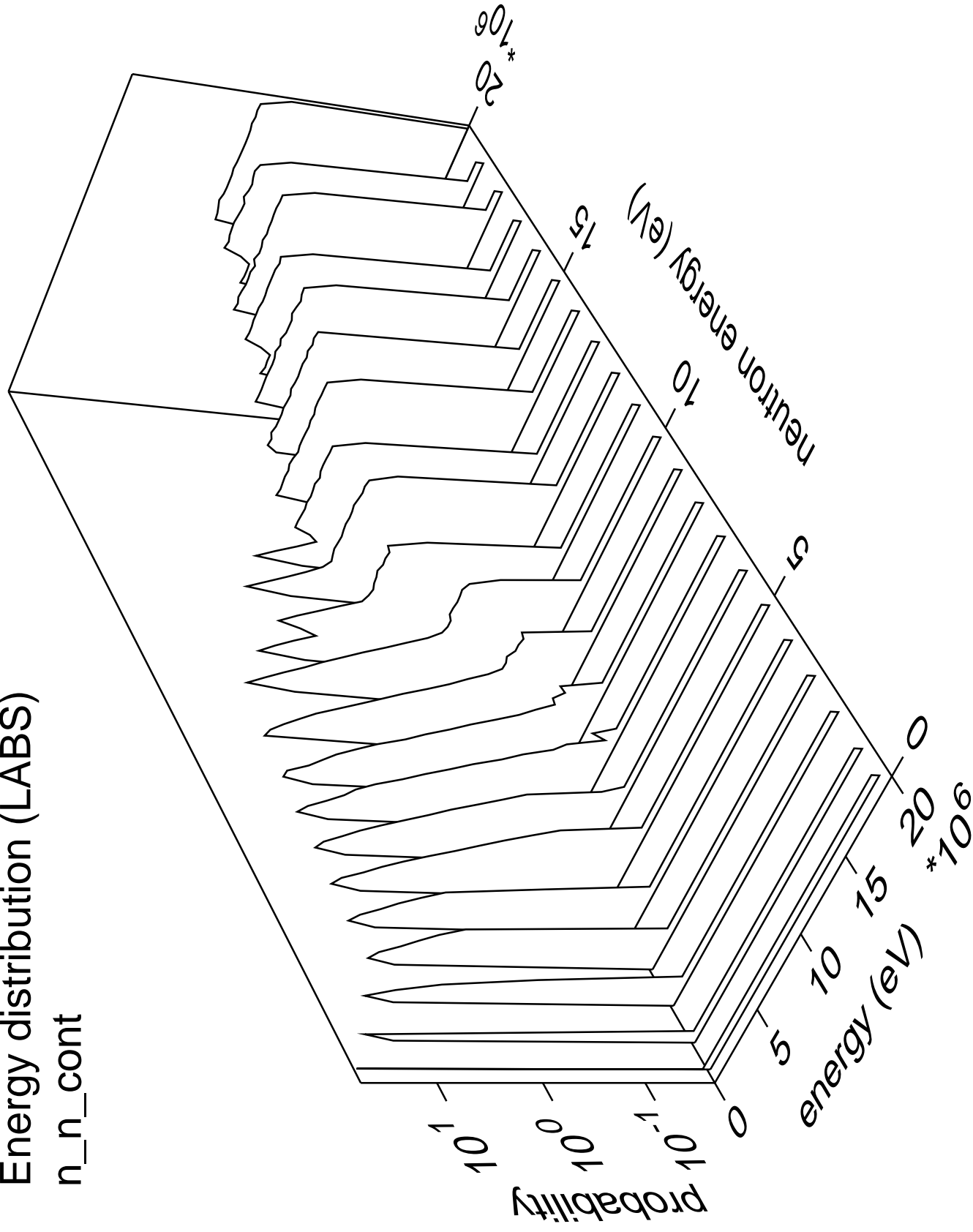
Energy distribution (LABS)
n_3n

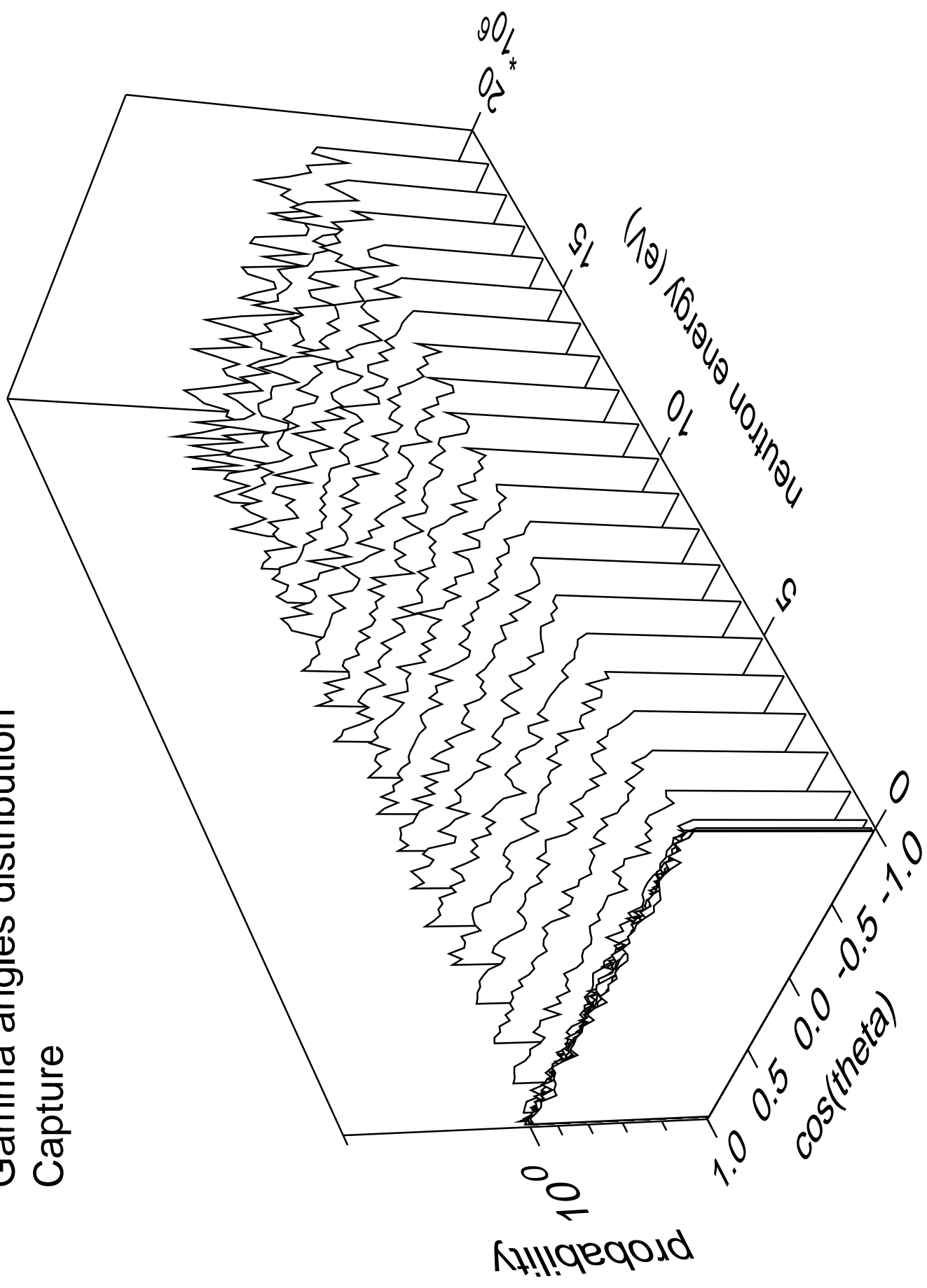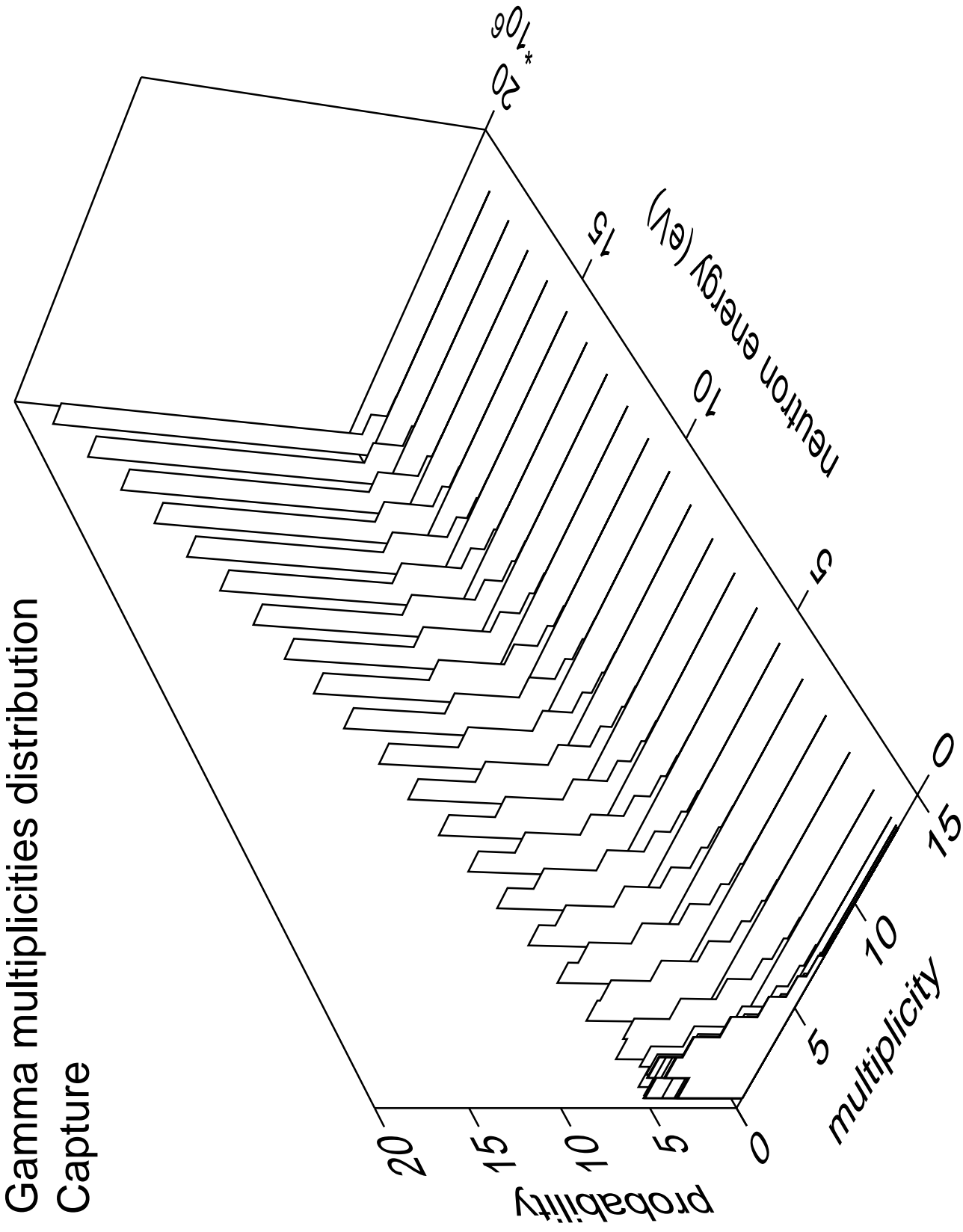Energy distribution (LABS)
n_n_cont

Gamma energy distribution
Capture

probability

neutron energy (eV)

gamma energy (MeV)

*10⁶
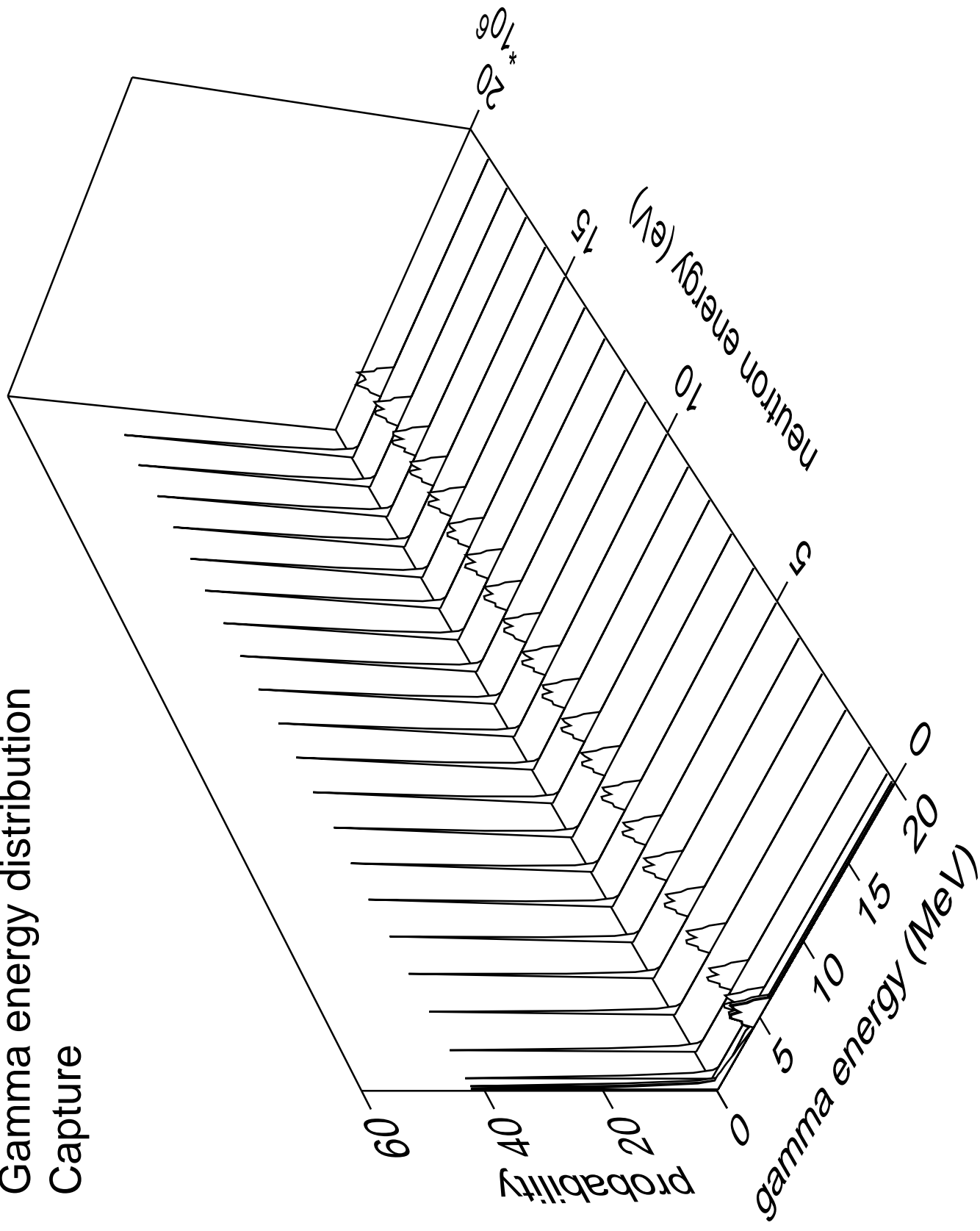
Gamma angles distribution
Capture

Gamma multiplicities distribution
Capture

probability

neutron energy (eV)

$*10^6$

multiplicity

Gamma energy distribution
n_n_1

Gamma angles distribution
n_n_1

probability

neutron energy (eV)

cos(theta)

6 * 10^6

4

2

0

1.0   0.5   0.0   -0.5   -1.0

10^0
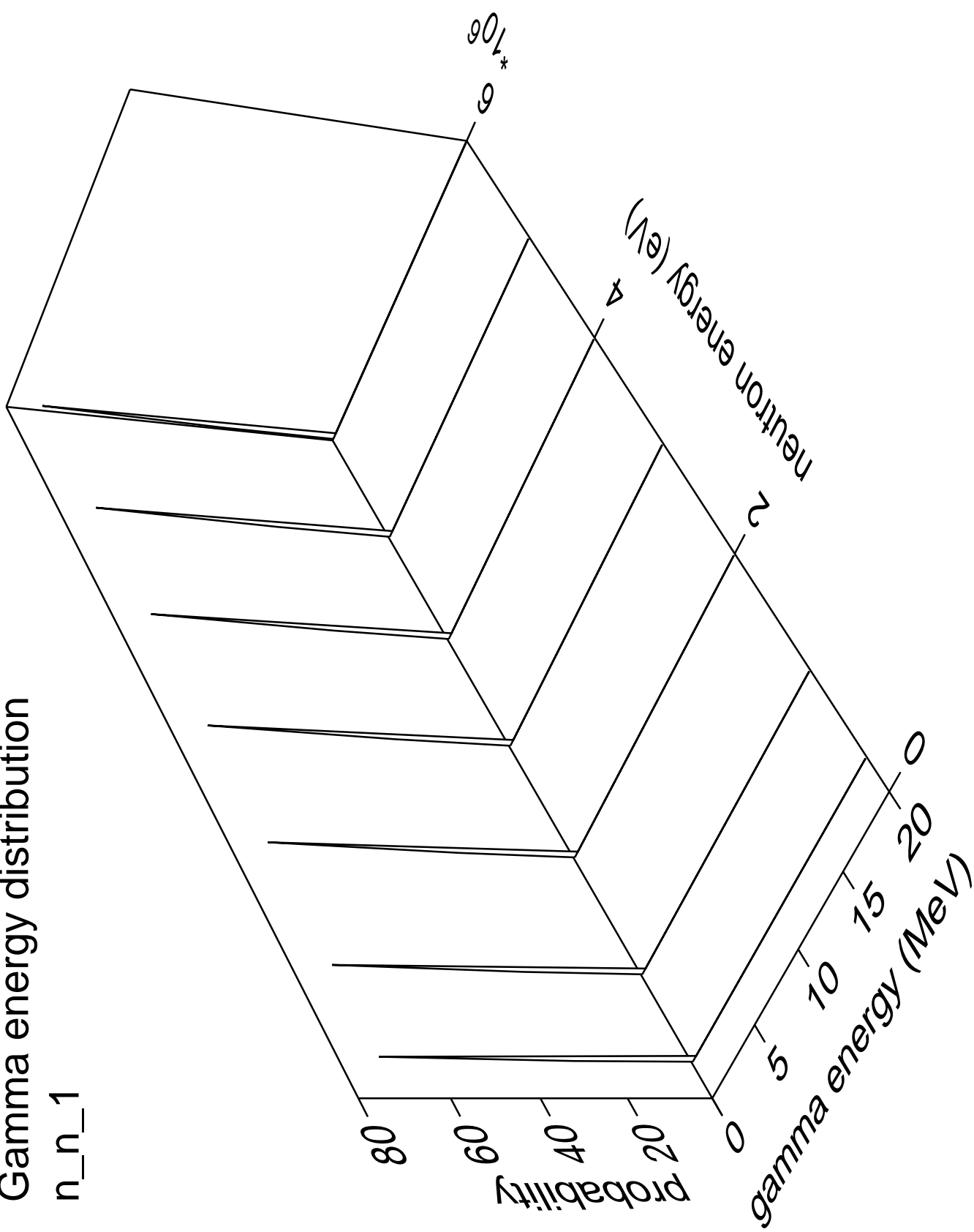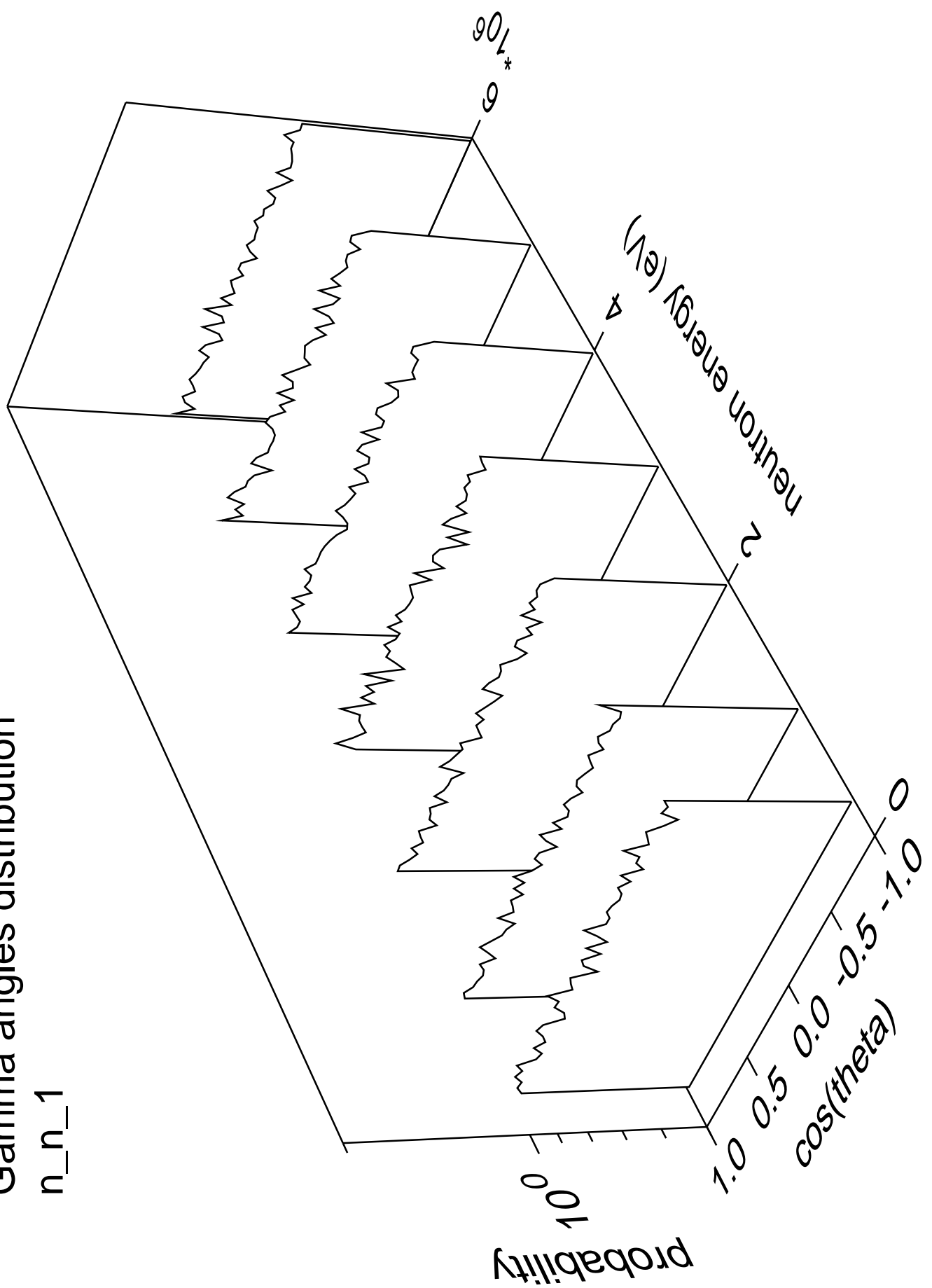
Gamma multiplicities distribution
n_n_1

Gamma energy distribution
n_n_2

neutron energy (eV)

gamma energy (MeV)

probability

$9 * 10^6$

Gamma angles distribution
n_n_2

probability

10^0

neutron energy (eV)

6 *10^6

4

2

0

cos(theta)

1.0 0.5 0.0 -0.5 -1.0
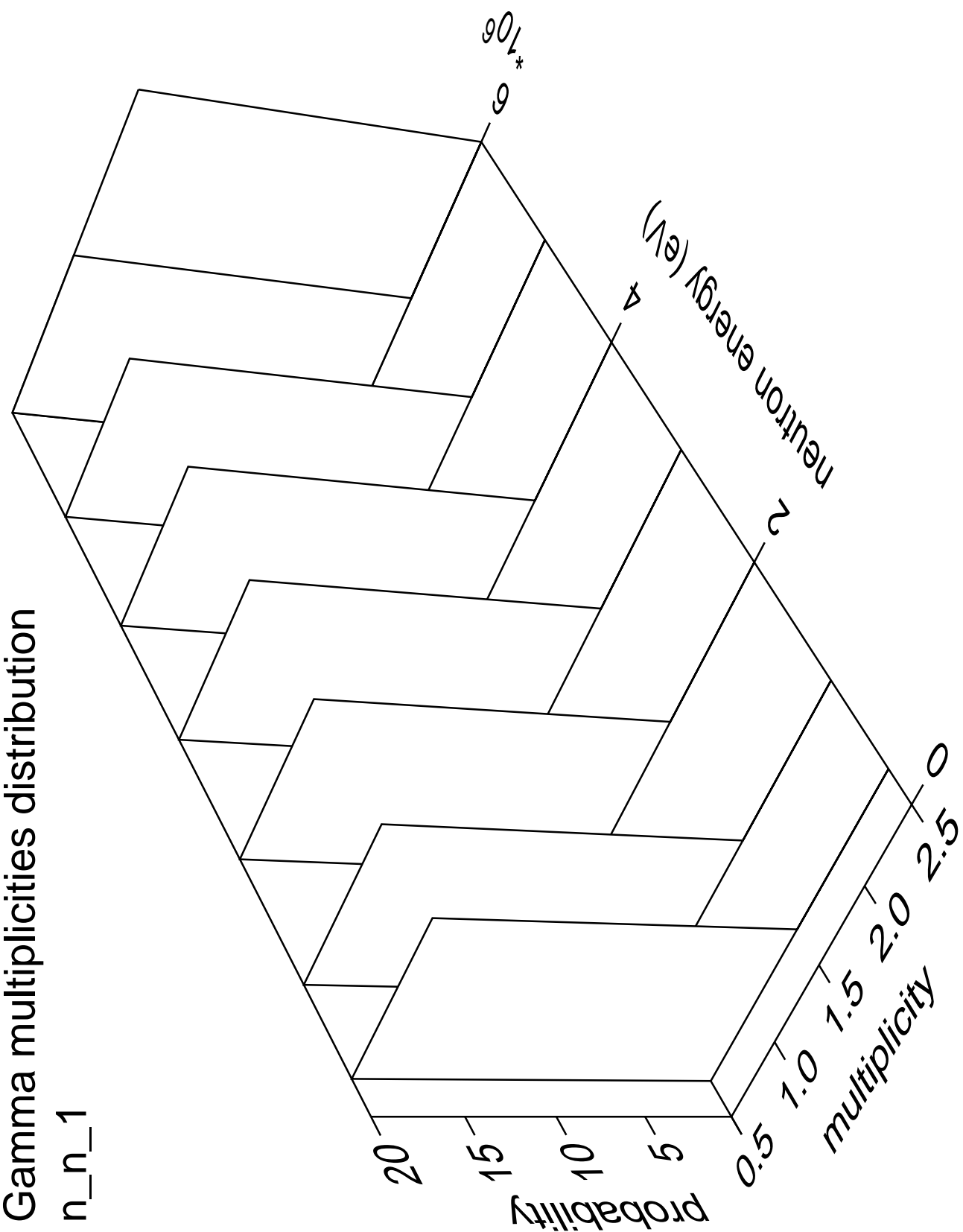
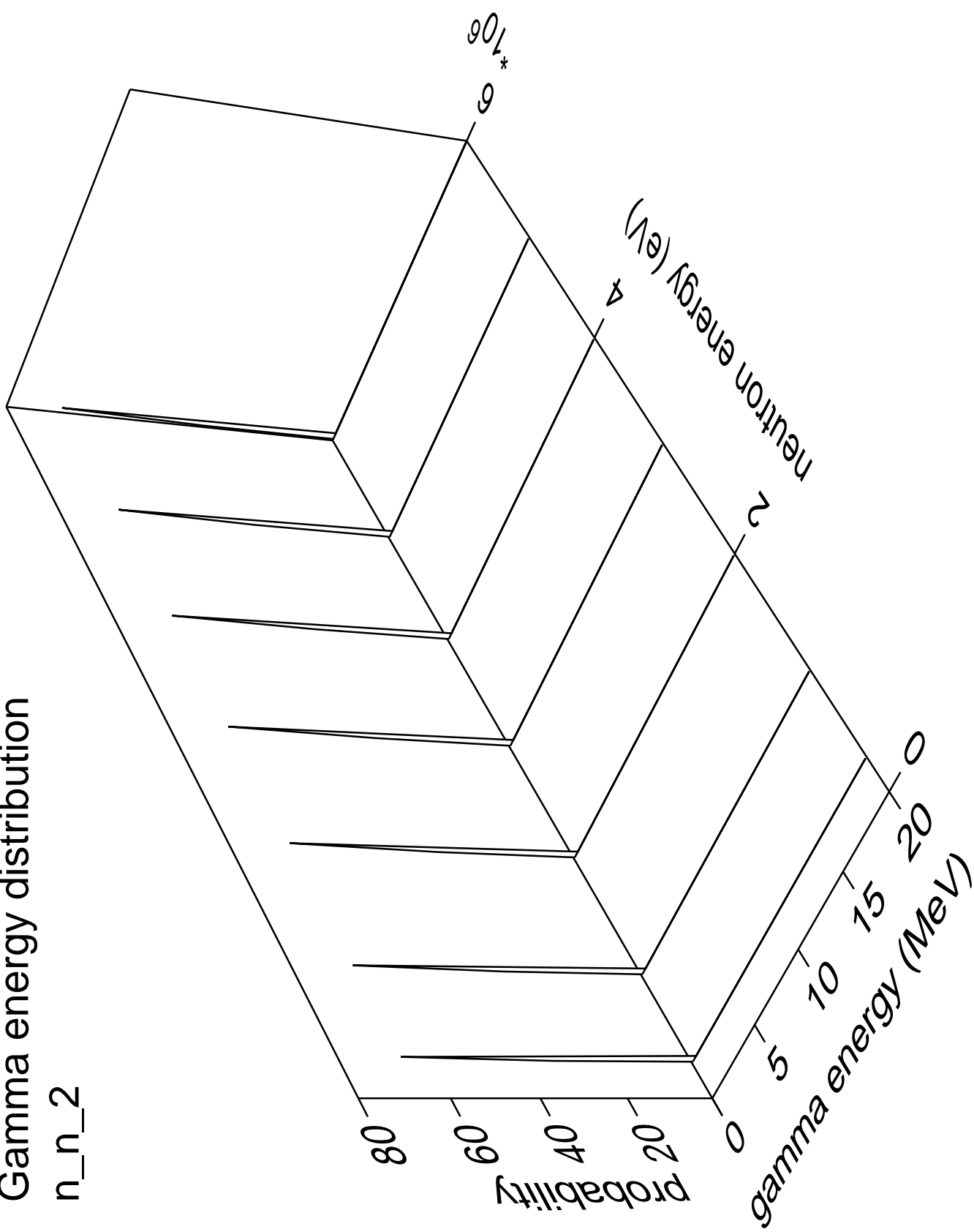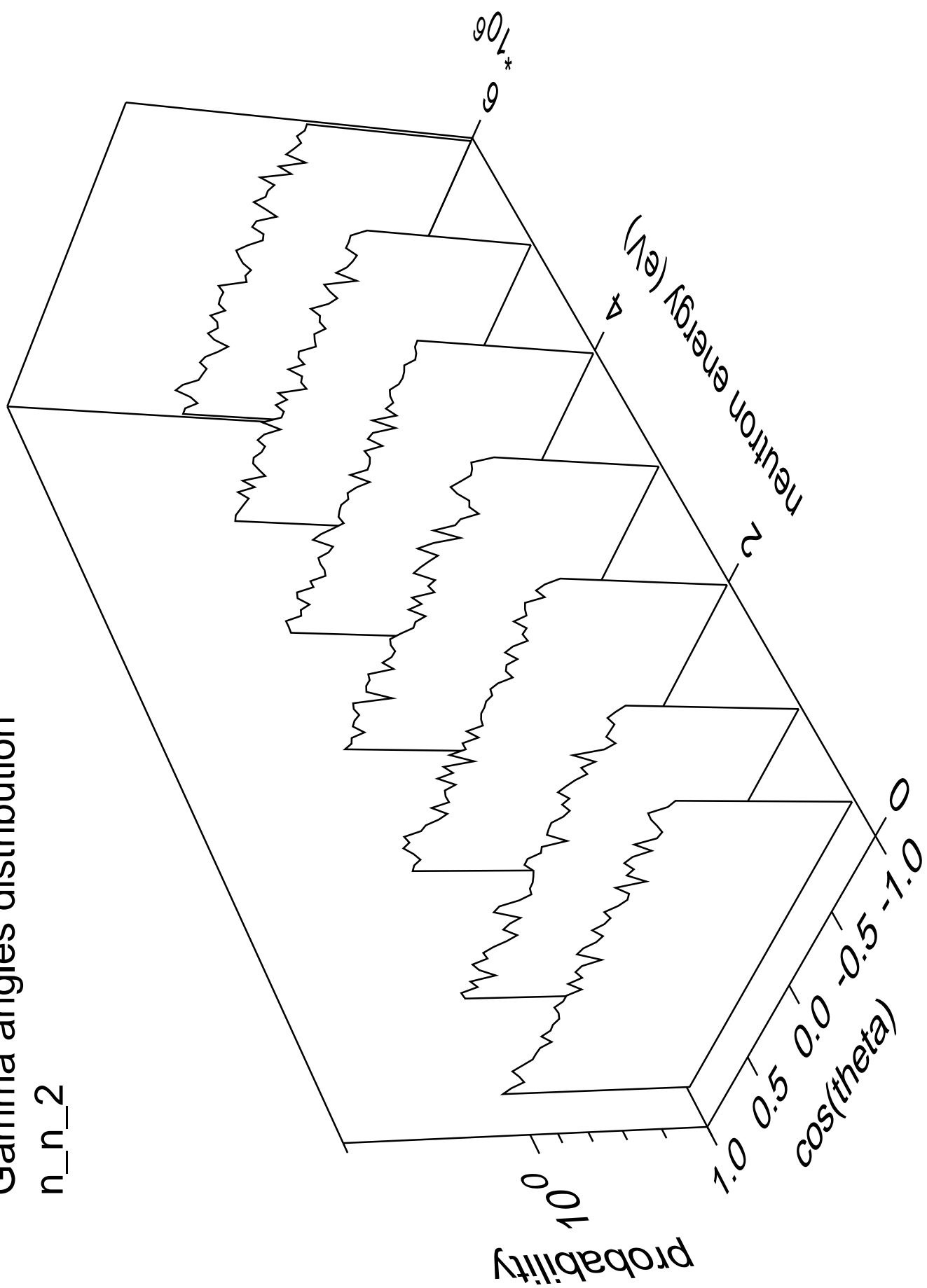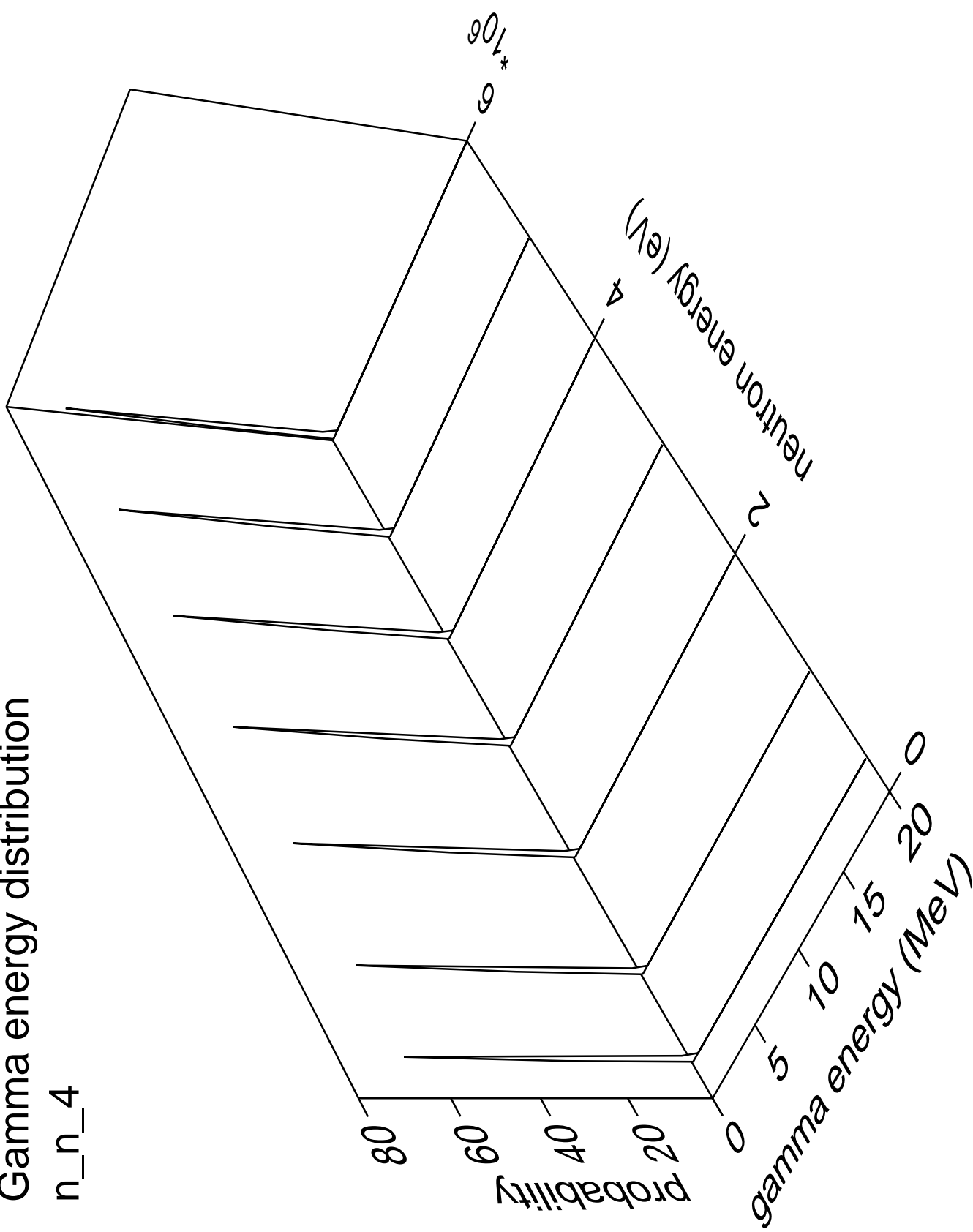Gamma multiplicities distribution n_n_2
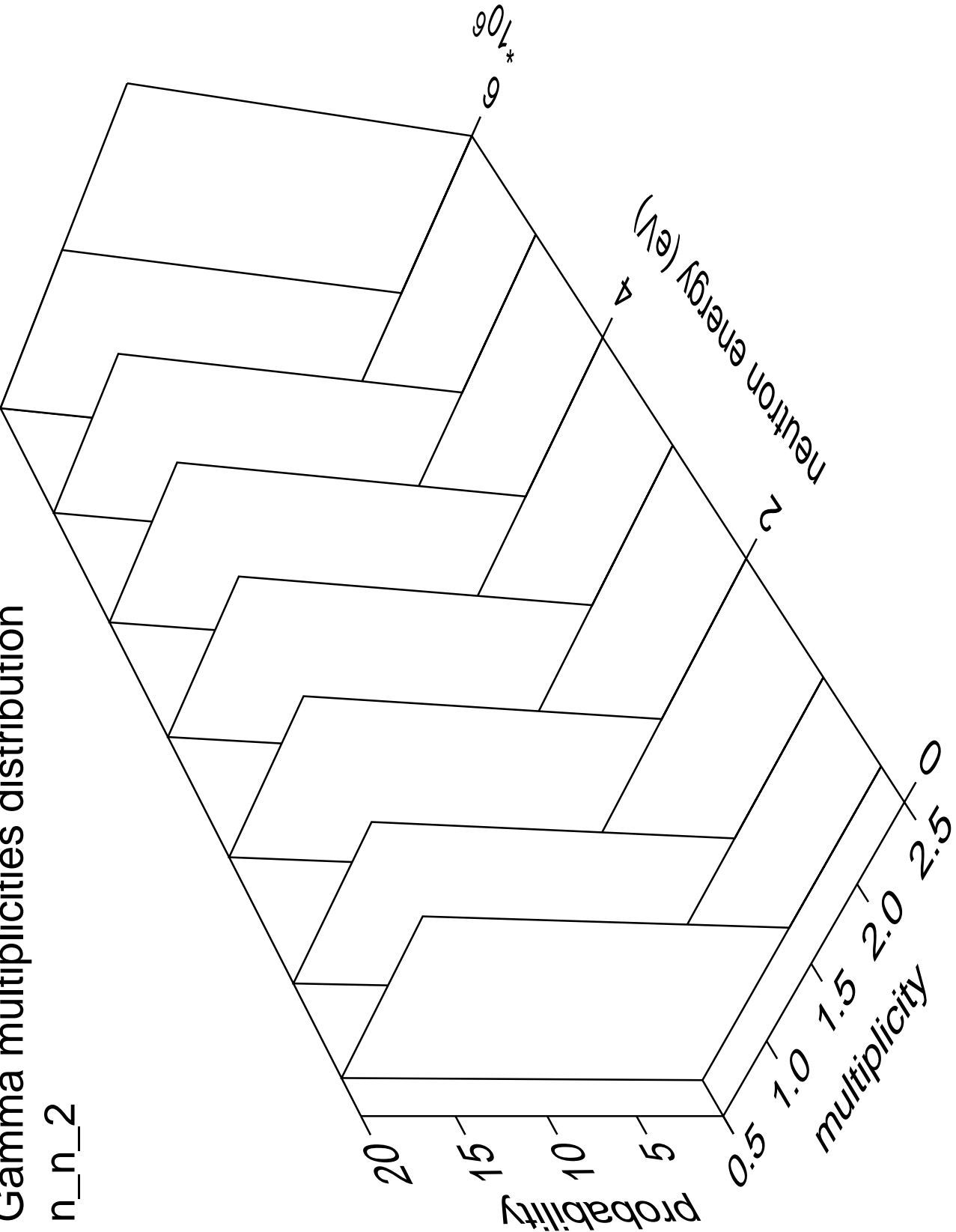
Gamma energy distribution
n_n_4

Gamma angles distribution
n_n_4
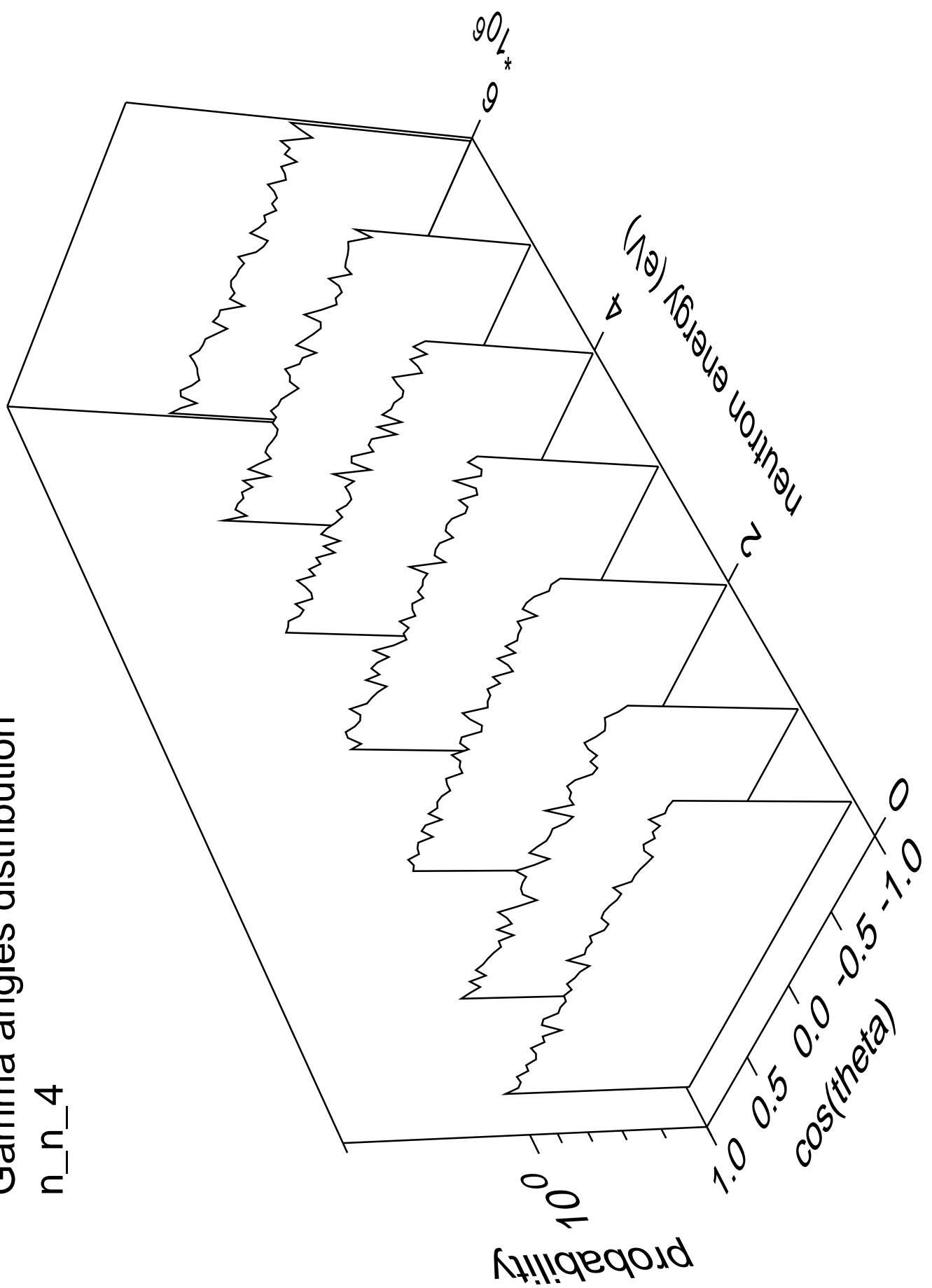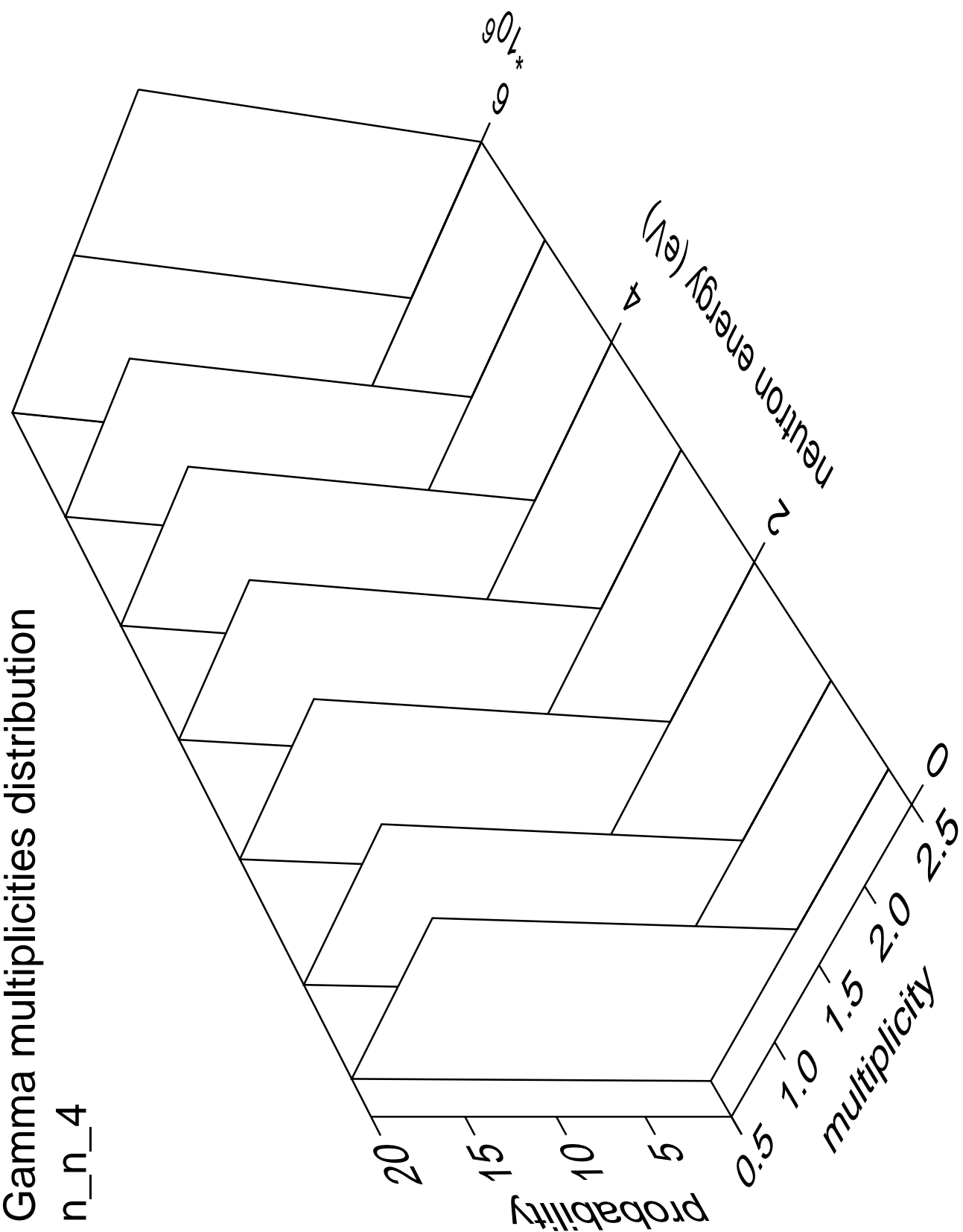
probability

neutron energy (eV)

cos(theta)

Gamma multiplicities distribution
n_n_4

neutron energy (eV)

multiplicity

probability

Gamma energy distribution
n_n_cont

probability

neutron energy (eV)

gamma energy (MeV)

20 *10⁶

15

10

5

0   5   10   15   20

0

20

40

60

80

100

Gamma angles distribution
n_n_cont

probability

neutron energy (eV)

cos(theta)
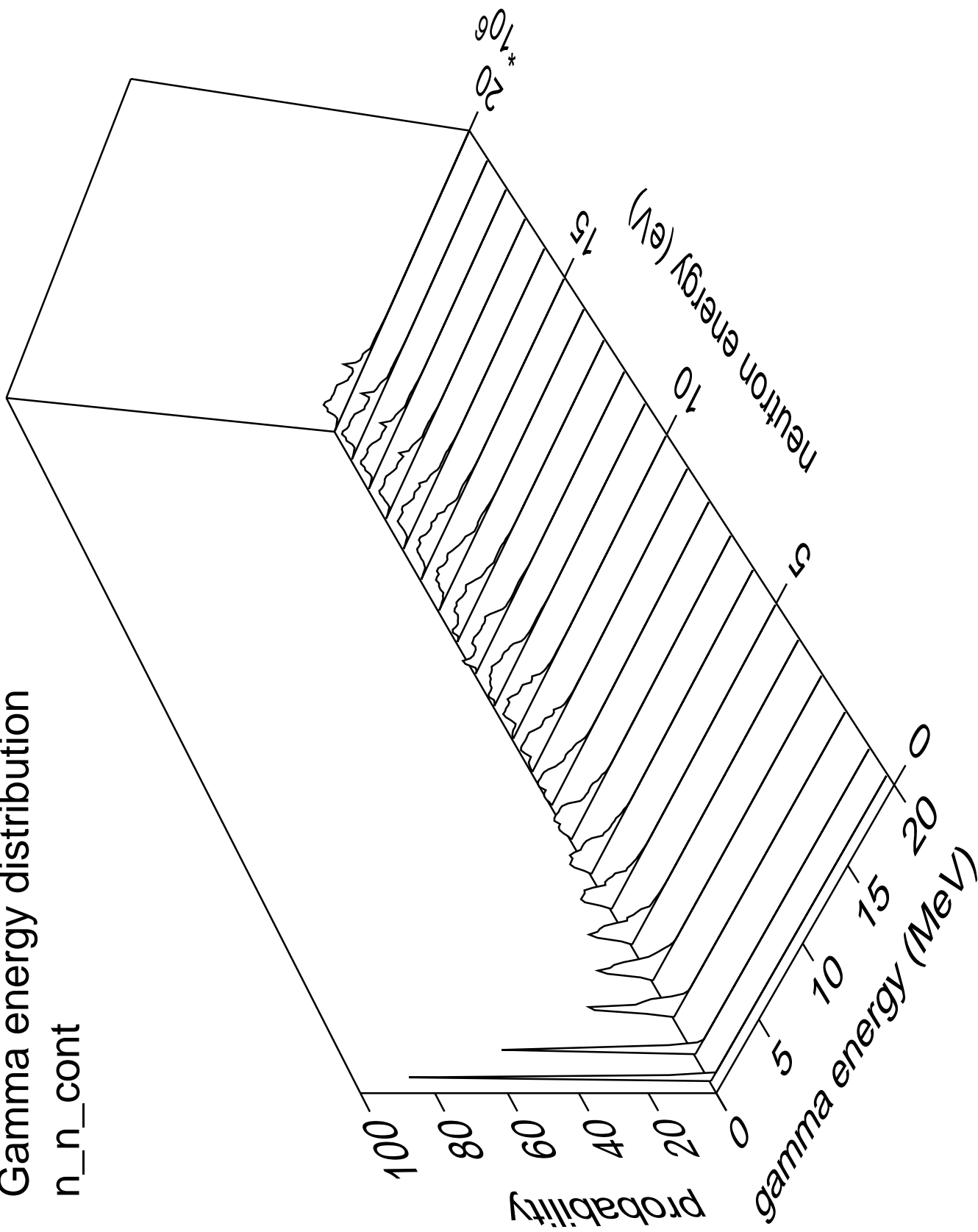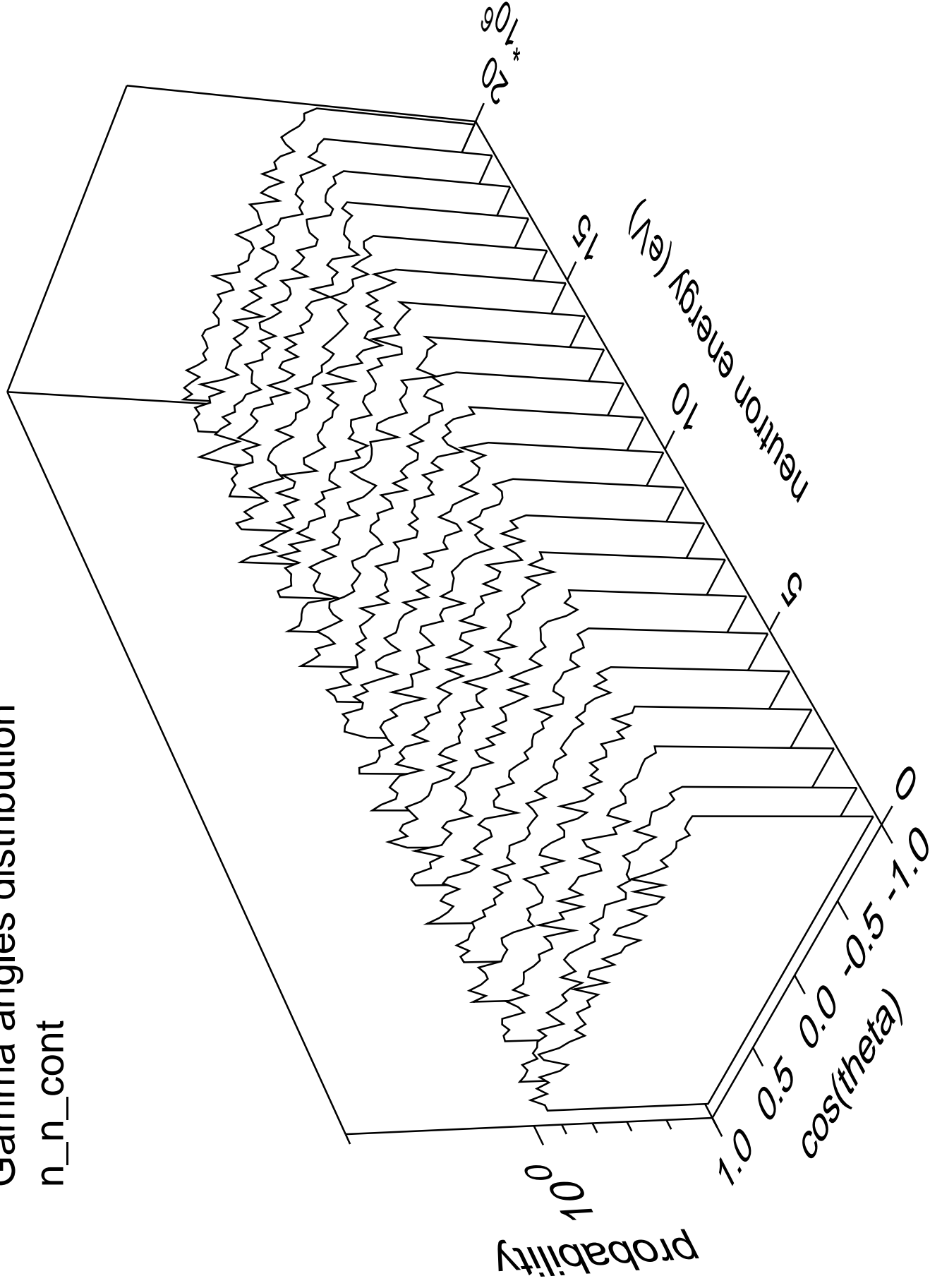
Gamma multiplicities distribution
n_n_cont

Gamma energy distribution
n_p_tot
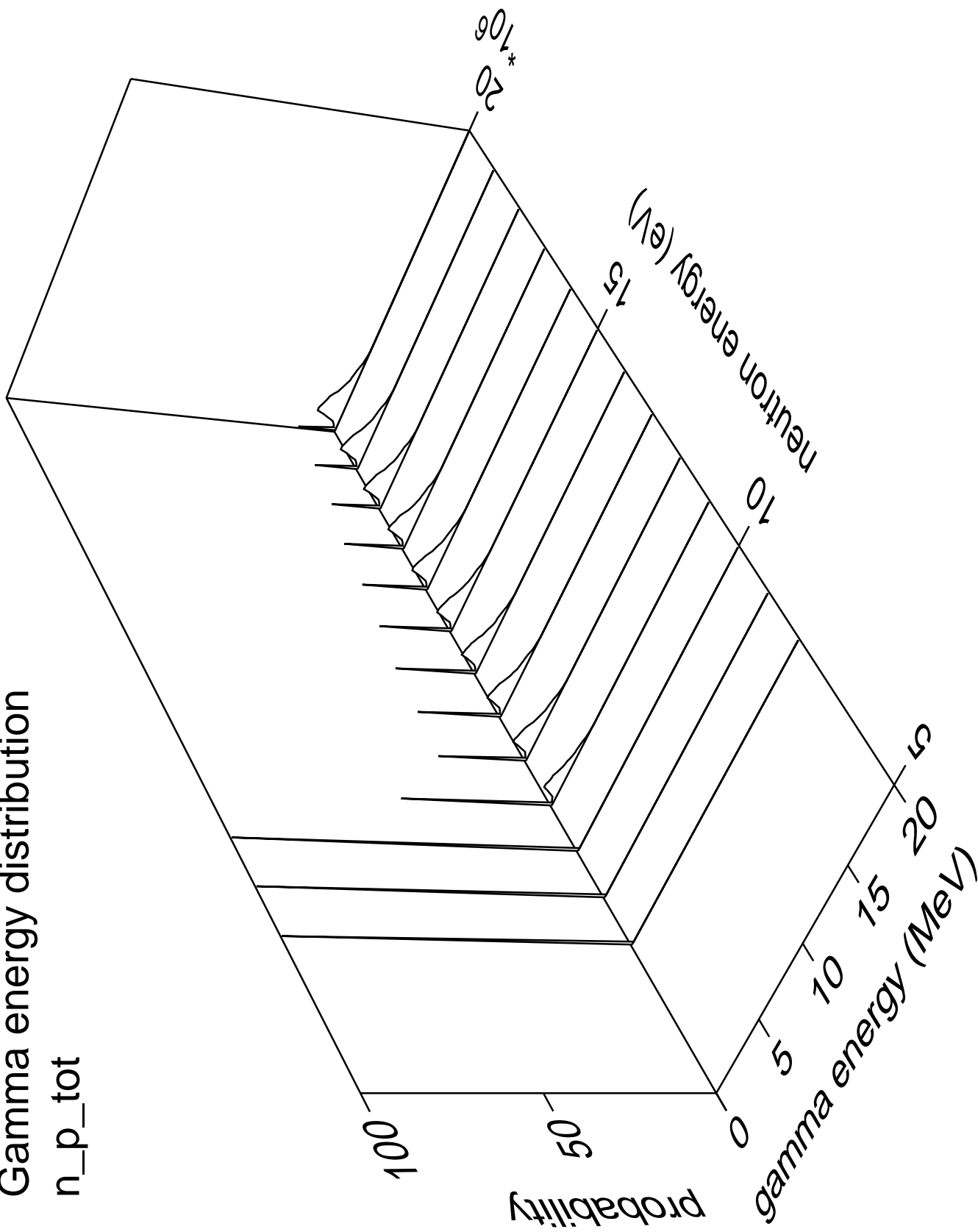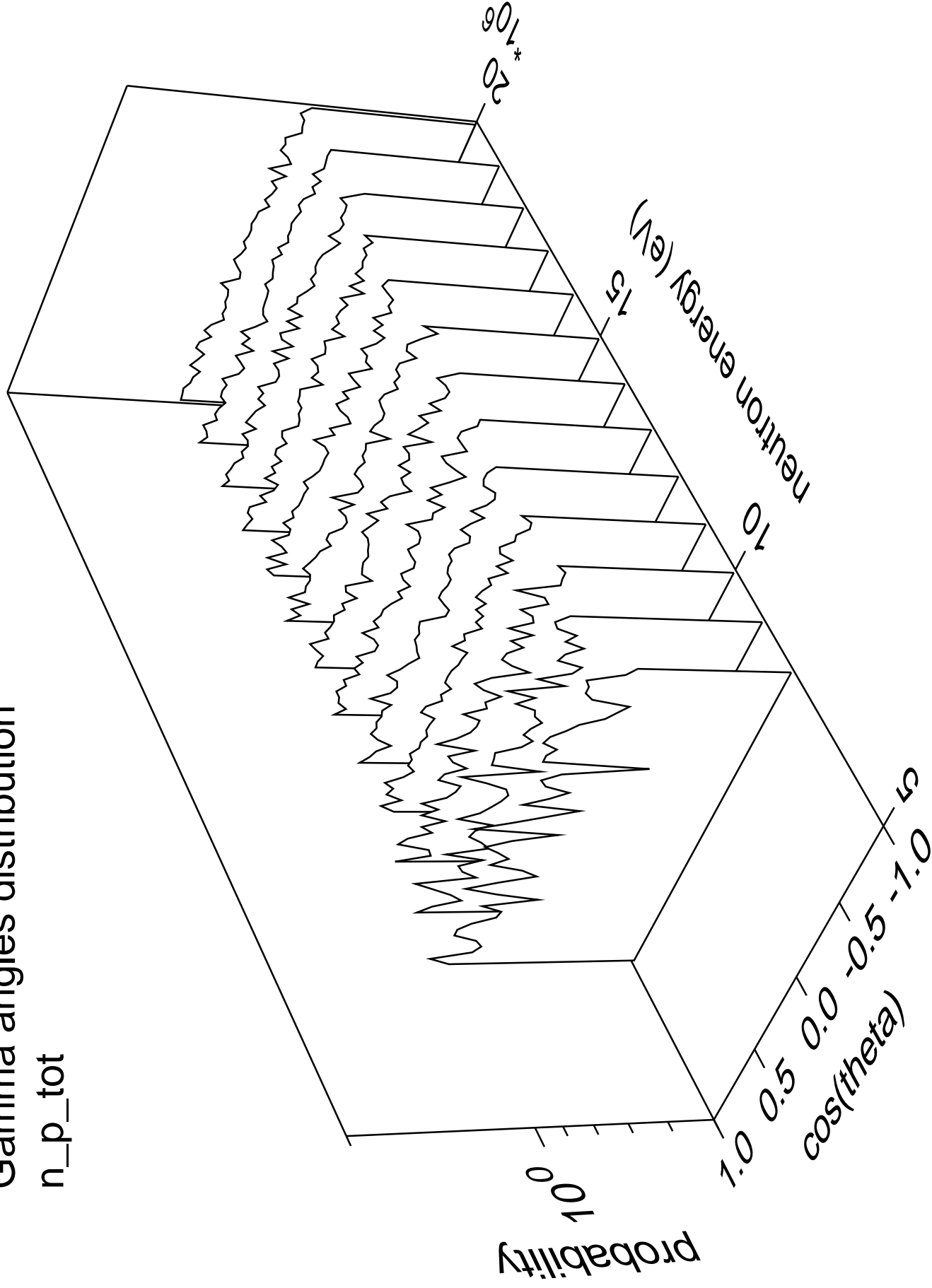
probability

neutron energy (eV)

gamma energy (MeV)

20 *10^6

15

10

5

100

50

0   5   10   15   20

Gamma angles distribution
n_p_tot

probability

neutron energy (eV)

cos(theta)

Gamma multiplicities distribution
n_p_tot

probability

neutron energy (eV)

multiplicity

20 *10⁶

Gamma energy distribution
n_a_tot

probability

gamma energy (MeV)

neutron energy (eV)
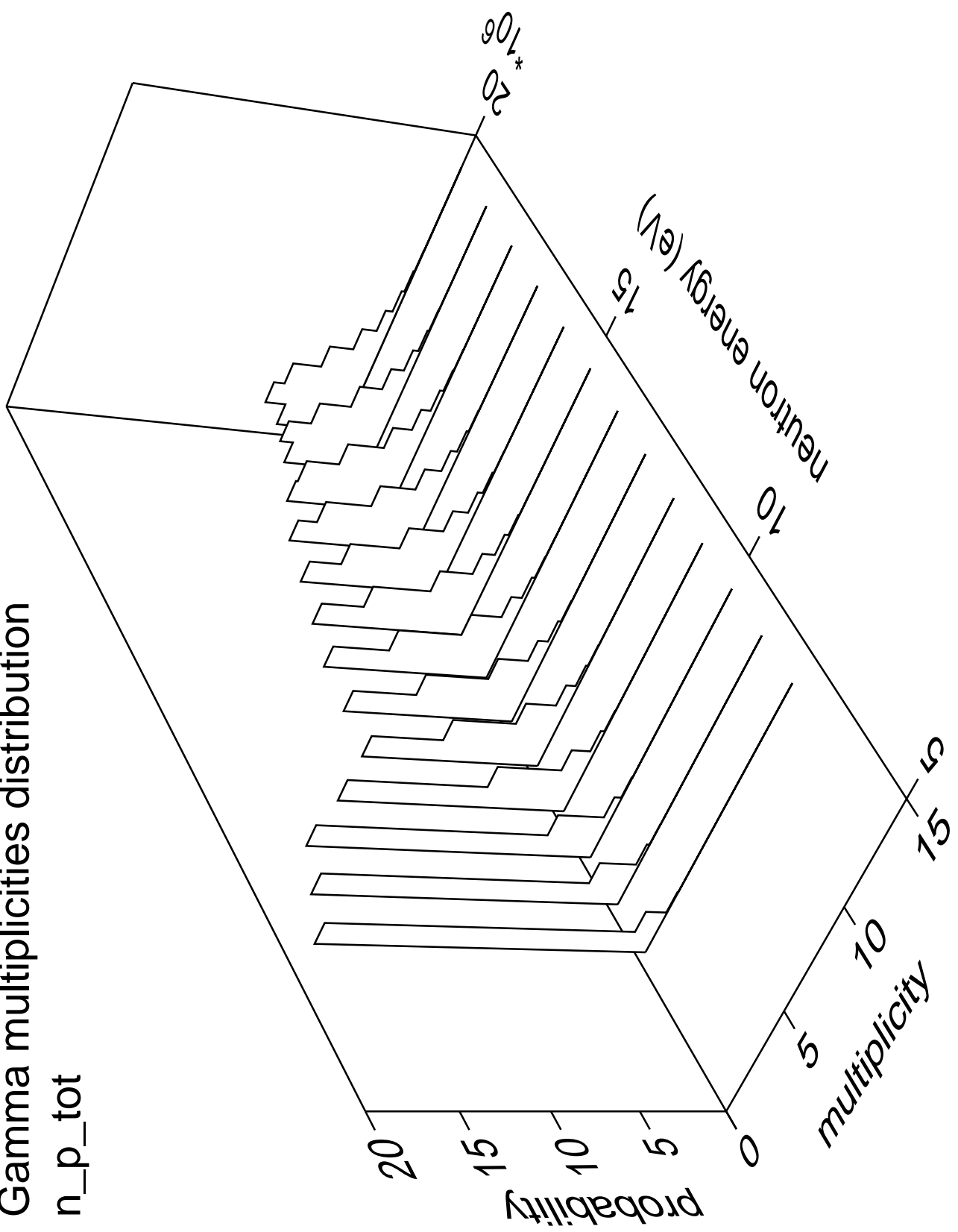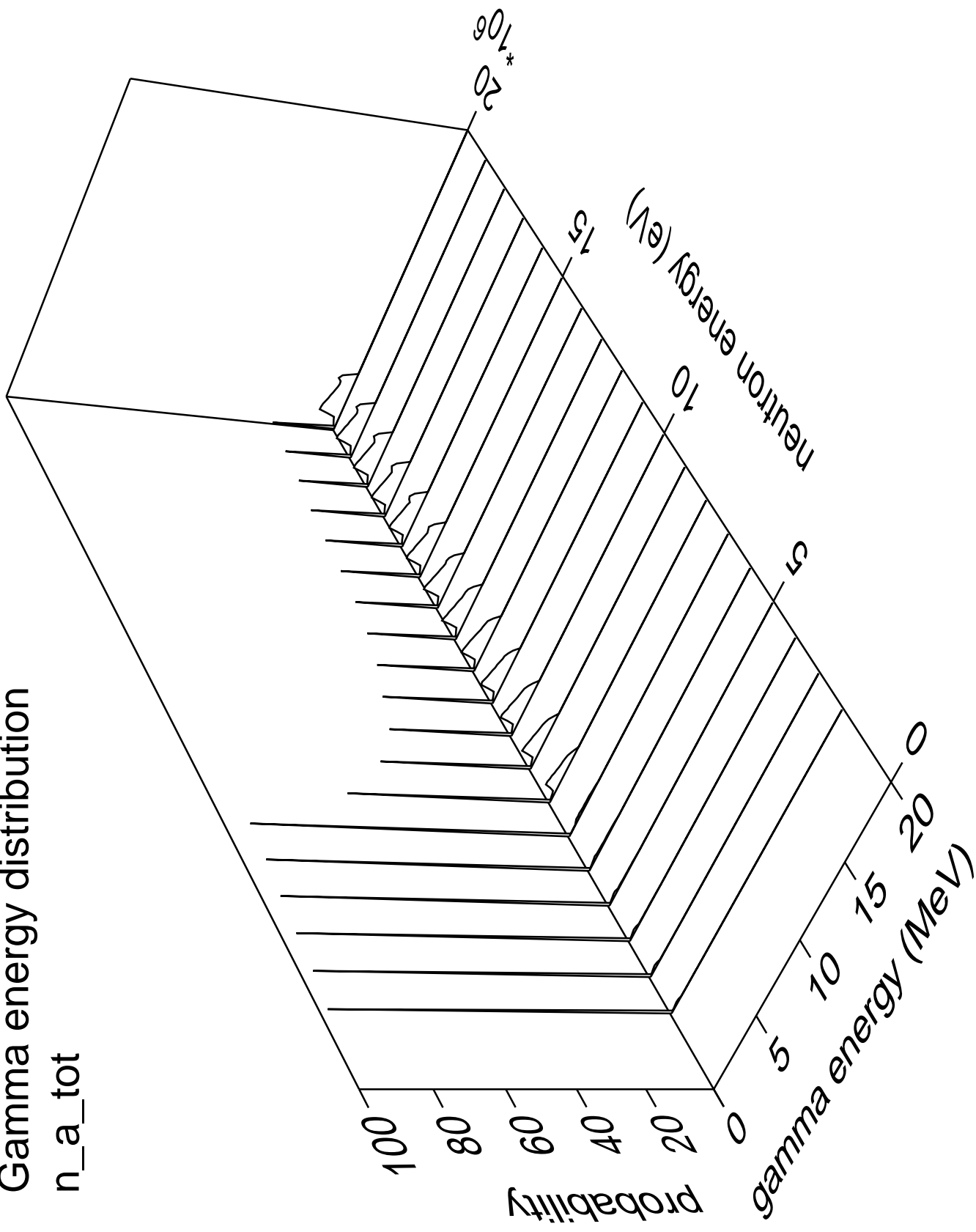
Gamma angles distribution
n_a_tot

Gamma multiplicities distribution
n_a_tot

probability

neutron energy (eV)

multiplicity

20 *10⁶